

**ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY
FY 13 END-OF-YEAR REVIEW
OF THE CLEAN WATER ACT, SECTION 106 PROGRAM
DECEMBER 4, 2013**

I. INTRODUCTION

The FY 13 End-of-Year review discussions on the Clean Water Act (CWA), Section 106 Water Pollution Control program were held with the Arkansas Department of Environmental Quality (ADEQ) and the Environmental Protection Agency (EPA), Region 6, staff at the Stateline Post Office and Federal Building in Texarkana, TX and with other staff participating via conference call. The meeting included discussions with staff from the Surface Water Quality and the Ground Water Programs regarding the FY 13 CWA, Section 106 work plan. The work plan identifies commitments that are partially funded by the Section 106 state allotment and the state Maintenance of Effort (MOE).

The End-of-Year review addressed efforts and activities performed by ADEQ to meet the program commitments and accomplishments based on the FY 13 work plans. This report summarizes the ADEQ/EPA review discussions and program findings for the FY 13 reporting period which began October 1, 2012, and continued through September 30, 2013. A list of meeting attendees is included in Attachment 1.

II. FINANCIAL AND ADMINISTRATIVE PROGRAM MANAGEMENT

ADEQ submitted the application and work plan for the FY 13 CWA, Section 106 funds by the required August 1, 2012, deadline. In April 2012, EPA forwarded the Regional priorities for FY 13 funding for the base Section 106, the Section 106 Monitoring Initiative, and Section 604(b) programs. However, ADEQ and EPA could not reach mutual agreement on many of the recommended priorities for commitments in the Section 106 and 604(b) program work plans.

In FY 13, ADEQ was awarded \$1,170,000 in funding on February 12, 2013 and this grant was increased by \$882,000 in July 2013 for a total of \$2,052,000 to manage the CWA, Section 106, Surface Water and Ground Water Programs. These funds resulted in \$1,816,000 being available for surface water commitments and \$236,000 for ground water activities. ADEQ used 11.5% of the available Section 106 allotment for Ground Water activities. The Region continues to recommend that at least 15% of the Section 106 funds be made available for Ground Water activities. ADEQ provided the required MOE in the amount of \$529,880 in State funds.

III. SURFACE WATER QUALITY PROGRAM

A. Permits and Enforcement

ADEQ issues National Pollution Discharge Elimination Systems (NPDES) permits in a timely manner and by the expiration date (within 180 days of the expiration date) that meet the state and federal requirements. Currently, fourteen permits are on hold due to the minerals criterion development issues. There were approximately 50 permits on the state's watch list, but the number has been reduced to 2 to 3 permits. ADEQ makes efforts to meet with the permittees to get them into compliance before issuing administrative orders and/or penalties.

The following chart includes ADEQ's commitments and accomplishments by the Permits Program:

Table 1 – NPDES Program Activities

| Activities | Commitment | Actual |
|--|-------------------|---------------|
| <i>Permits Issued:</i> | | |
| Major Industrial | 5 | 5 |
| Major Municipal | 14 | 11* |
| Minor Municipal | 50 | 53 |
| Non-Minor Municipal | 60 | 60 |
| Minor Federal | 5 | 8 |
| General Permits | As needed | 433 |
| Construction Permits | As needed | 28 |
| | | |
| <i>Audits:</i> | | |
| Pretreatment Audits | 5 | 5 |
| | | |
| <i>Water Quality Modeling:</i> | | |
| WQ Management Plan Update | As needed | 4 |
| Desk Top Modeling Conducted/ Reviewed | As needed | 53 |
| | | |
| | | |

*ADEQ actually drafted 14 Major Municipal permits during FY 13. The following permits could not be issued due to the following reasons:

-The City of Siloam Springs was not issued because EPA placed a hold on all major permits in the Illinois River watershed due to development of a TMDL.

-The Cities of Harrison, Berryville and West Helena permits were not issued because the State was awaiting EPA approval due to implementation of a new State law for NPDES permits.

1. The following chart includes ADEQ's commitments and accomplishments by the Enforcement Program:

Table 2 – Enforcement Program Activities

| Enforcement Actions | Accomplishments | |
|--|------------------------|--|
| <i>NPDES</i> | | |
| Informal (Warning Letters) | 737 | |
| Formal Default Administration Orders (DAO) | 2 | |
| Formal Consent Administrative Orders (CAO) | 67 | |
| Formal Notice of Violations (NOV) | 14 | |
| | | |
| <i>State Permits</i> | | |
| Informal | 24 | |
| Formal DAO | 0 | |
| Formal CAO | 13 | |
| Formal NOV | 4 | |
| | | |

The Region commends ADEQ on its accomplishments in the Permits and Enforcement Programs during FY13 which assisted the Region in meeting its Performance Activity Measures commitments.

B. Water Quality Management Planning (WQMP)

Table 3 - Water Quality Management Planning Activities

| Program Activity | Accomplishments |
|--|------------------------|
| TMDL Documents Reviewed | 4 * |
| UAA Documents Reviewed | 15 |
| WER Documents Reviewed | 5 |
| Third Party Regulation Revision Request Reviewed | 2 |
| Toxicity Samples Collected | 15 |
| Sites Visited with Toxicity Samples | 48 |
| | |
| <i>401-404 Program</i> | |
| 404's Certified | 37 |
| 404's Waived | 2 |
| Nationwide Permits | 438 |

Total Maximum Daily Loads (TMDLs) - *A number of TMDLs were prepared with the American Recovery and Reinvestment Act (ARRA) funding. In addition, work was done on four TMDLs under the Section 106 grant. The following TMDLS completed under Section 106 include:

- Town Branch TMDL for total phosphorus was public noticed,
- TMDLs for waters in the area near El Dorado for minerals,
- the L'Anguille River, and
- Big Creek TMDLs were reviewed under the Section 106 grant. The Town Branch revision, the Bayou

ADEQ has revised the Town Branch TMDL for nutrients and has submitted it to EPA for review. The DeView and Cache River TMDLs are expected to be submitted to EPA in FY 14. ADEQ plans to submit 20 TMDLs for completion in FY 14. EPA estimates that the ADEQ TMDL pace number is between 10 to 25 TMDLs.

Water Quality Standards - Triennial Revisions to the WQMP were public noticed and comments were reviewed from various state and public entities. Meetings were scheduled to discuss comments and sub-committees formed to address comments. Development of an assessment method for sedimentation is underway and is expected to be included in the next update (in February 2014) and then sent to EPA. Regulation No. 2 will also include nutrient criterion development for Beaver Lake and ADEQ does not expect resistance.

Planning, Assessment, and Data Management - ADEQ began revisions to the assessment methodology for the listing/delisting of waterbodies to better clarify procedures within the methodology. Water quality data has been uploaded to the STORET database. The Quality Management Plan (QMP) was submitted to EPA on March 11, 2013, and approved on March 14, 2013, and the Quality Assurance Project Plan was submitted on October 23, 2012, and approved on February 1, 2013.

The site specific criterion for minerals took a considerable amount of ADEQ's time and resources in FY 13. ADEQ worked constantly with outside entities and politicians. The minerals criterion rule (954) was presented to the Legislature in April 2013, and was repealed in October 2013. There was resistance to it and the minerals criterion had to be removed. ADEQ will be resubmitting the minerals criterion with hopes that it will pass this time.

C. Compliance Monitoring

ADEQ has experienced considerable staff turnover (9 employees) in this area; however, the state does not foresee a problem meeting the 106 inspections for FY 2014. MS4 audits have been put on hold until the permit section recovers from the staff shortage. Pre-treatment compliance inspections are being performed every two years. Inspectors have maintained frequency of inspections for major and minors. ADEQ anticipates filling the vacant El Dorado inspector position and the Fayetteville inspector position in North West Arkansas.

Table 4 - Compliance Inspections

| Program Activity | Commitment | Accomplishment |
|---|-------------------|-----------------------|
| Compliance Evaluation Inspection | | |
| Major Municipal | 33 | 25 |
| Major Non-Municipal | 14 | 10 |
| PCI/ Audits | 10/8 | 7 |
| Minor Municipal | As needed | 44 |
| Minor Non-Municipal | As needed | 40 |

| Program Activity | Commitment | Accomplishment |
|---------------------------------------|-------------------|-----------------------|
| Compliance Sampling Inspection | | |
| Major Municipal | 4 | 4 |
| Major Non-Municipal | 4 | 4 |
| Minor Municipal | 4 | 11 |
| Minor Non-Municipal | 8 | 23 |
| | | |
| Other | | |
| Construction Storm Water | As needed | 144 |
| Industrial Storm Water | | 132 |
| Complaints Investigated | | 476 |
| Fish Kills Investigated | | 7 |
| Emergency Response Actions | | 80 |
| Ambient Water Samples Collected | | 2100 |
| Sanitary Sewer Overflow Inspections | | 52 |
| Reconnaissance Inspections | | 65 |
| Compliance Assistance | | 20 |

IV. Clean Water Act, Section 106 NPDES and Enforcement Initiative Funding

FY10 Grant No. I-00F32101: Water Quality Reporter Phase I - The State was awarded \$106,200 on March 11, 2011. The initial budget period was April 1, 2011, through September 30, 2013. During FY 13, \$74,327 was drawn with the last draw on June 11, 2013. There is currently a zero balance in the grant.

The purpose of this grant was to develop a user friendly software program to interface with ADEQ's LIMS database, extract data from the database, analyze data against the state and federal water quality criteria, and to provide training on the database. Phase I of the project has been completed.

V. Clean Water Act, Section 106 Monitoring Initiative Grants

- A. FY 10 Grant No. I-96687701: Identification of Least Impaired Lakes of Arkansas' Type B Lakes in Two Level-Three Ecoregions (*Quachita Mountains and Arkansas River Valley*)** - ADEQ was awarded \$517,900 on February 19, 2009, for the monitoring strategy enhancement. EPA entered into an Interagency Agreement (IAG) with the USGS to complete the monitoring for the statistically-valid surveys. The initial budget period was October 1, 2008, through September 30, 2011 and was extended through September 30, 2013. During FY 13, \$72,785 drawn from the grant with the final draw processed on August 15, 2013. There currently is a zero balance in the grant.
- The purpose of this grant was to conduct a survey to identify least-impaired lakes for ADEQ's Type B lakes in 2 level 3 ecoregions. ADEQ worked with the United States

Geological Survey (USGS) to complete this project. Some of the project tasks are: 1). develop a QAPP; 2). conduct screening, reconnaissance and identification candidates of least impaired lakes; 3). Conduct intensive water quality sampling; and 4). Data Management. Most tasks have been completed. Some analysis of the data and upload to Storet remain to be completed. Also, the final report is under review by the USGS and is due to be submitted.

B. FY 11 Grant No. I-00F61001: Water Quality Reporter Phase II

\$197,700 was awarded to ADEQ on September 20, 2012 for the monitoring strategy enhancement. EPA entered into an IAG with the USGS for to complete the monitoring for the statistically-valid surveys. The initial budget period for the grant was October 1, 2012, to September 30, 2013, and was extended through September 30, 2014. The balance in the grant is \$96,525 as of the date of the end-of-year meeting.

The purpose of the grant is to continue to build, implement and test the computer program designed during Phase I and provide knowledge transfer/user training. This database should assist with assessment of water quality data to develop biennial water quality monitoring and assessment reports.

C. FY 11 Grant No. I-00F27301: Identification of Least Impaired Lakes of Arkansas' Type B Lakes in Two Level-Three Ecoregions (*Boston Mountains and the Ozark Highlands*) –

The state was awarded \$173,200 on September 28, 2011, for the monitoring strategy enhancement. EPA entered into an IAG with the USGS to complete the monitoring for the statistically-valid surveys. The initial budget period for the grant was October 1, 2011, through September 30, 2013, and was extended through September 30, 2014. The remaining balance in the grant is \$108,589.

The purpose of this grant is to support ADEQ's water quality monitoring and assessment program with work in the significant publicly-owned lakes section by collecting data to develop lake water quality standards for Type B lakes and identify least impaired lakes for Type B lakes in two level-three eco-regions. Some of the tasks include: 1). Development of a QAPP; 2). screening and reconnaissance; 3). Conduct intensive water quality sampling; 4). Upload data to STORET. The remaining work to be completed includes several sampling trips, upload of the water quality data to STORET, tabulation of land use data and preparation of the spreadsheets.

D. FY 12/13 Grant No. I-00F60901

ADEQ was awarded \$325,300 for monitoring strategy enhancement. The initial award was made on September 6, 2012 for \$170,000 for project one and on July 15, 2013, the grant was increased to add \$155,300 for project 2. EPA entered into an IAG with the USGS to complete the monitoring for the statistically-valid surveys. The budget period is October 1, 2012, through September 30, 2015.

- 1. FY 12 Data Collection for Development of Nutrient Criteria in the Ozark Highlands** - Under this project, ADEQ proposes to collect water quality and biological data from the Extraordinary Resource Water Bodies. The data can be used to develop site specific nutrient criteria for those water bodies. The QAPP has been submitted to the Region; the historical data has been compiled and the site selection complete; six data samples have been collected all locations; spring macroinvertebrate samples collected at all but one location and are awaiting identification; fish data collected at only eight sites; periphyton samples (spring & summer) have been collected and analyzed; and all other physical habitat parameters collected.
- 2. FY 13 Data Collection for Development of Nutrient Criteria in the Boston Mountains** - The purpose of this project is to collect water quality and biological data from the Extraordinary Resource Water Bodies. Data can be used to develop site specific nutrient criteria for those water bodies. Funding for the project was provided in July 2013 and activities under this project were not yet underway.

VI. GROUND WATER PROGRAM

A. Administration

The Ground Water program has previously been staffed by a section manager and a geologist for completion of the Section 106 work plan activities. However, during FY 13, the geologist moved to another job and that position had not yet been filled.

The Ground Water program has funded some of the same activities over the years and would like to discuss a new direction or other potential funding activities with the Regional office.

B. Ground water Resources Characterization

1. Most of the work for the Ground Water program includes ambient monitoring. Sampling was started in the Hardy area and the Athens Plateau area during the first half of the reporting period and was completed during the second half of the reporting period. Sampling was initiated in the Jonesboro, Lonoke, and Omaha monitoring areas. A total of 72 sites were sampled.
1. One new Public Water Supply (PWS) source was added to the Hardy monitoring area and monitoring continued on the 12 PWA wells.
2. Some data was transcribed and reformatted to the WQX format for upload to STORET which improves and automates the databases. The exchange network was used to build the system. There have been some challenges with STORET/upload issues.

C. Groundwater Quality Planning

In November 2013, the manager attended a Hydraulic Fracturing Roundtable (Water Acquisition session) as part of EPA, Headquarter's study of the effects of hydraulic fracturing on drinking water supplies.

D. Addressing Gaps in Groundwater Protection

On-going assistance was provided to various ADEQ offices as well as outside entities on data interpretation and validation, information on water quality results, groundwater monitoring requirements and other information as requested.

E. Technical Assistance and Outreach

Some of the assistance and outreach activities during the reporting period include: providing hydrologic data to the ADEQ Permits office for a land application site; reviewed a permit application for a groundwater treatment facility; provided ground water data to the USGS to assist with update of the Arkansas State Water Plan; and transcribed sample results from the lab and provided it to well owners after sampling events.

F. Arkansas Department of Health

ADEQ entered into a Memorandum of Agreement (MOA) with the Arkansas Department of Health (ADH), the agency that implements the Wellhead Protection Program (WHPP). Under the MOA, ADH was provided \$46,000 for WHPP activities, to protect public water supply well (PWS) from contamination, and for public outreach activities. According to ADEQ, ADH has effectively managed the activities outlined in the agreement and they are pleased with the work that has been done.

VII. Followup Items.

| EPA/ADEQ FOLLOWUP ITEMS | | | |
|---|------------|-------------|---------------|
| Activities | EPA | ADEQ | DATE |
| 1..Set up Conference call with ADEQ Ground Water Program to discuss priorities/new direction for funding | X | | Jan. 28, 2014 |
| 2..Revisit the Water Quality Reporter Monitoring Initiative project to determine options for use of any remaining funds in the grant. | | X | Jan, 28, 2014 |
| 3..Monitoring and Assessment: Determine if the metals concern was resolved. | | X | Jan. 28, 2014 |

Attachment 1

| EPA and ADEQ SURFACE WATER and GROUNDWATER PROGRAMS 2013 EOY MEETING ATTENDEES (ON-SITE AND VIA CONFERENCE CALL) | |
|---|---------------------|
| ADEQ | EPA |
| On-site Meeting | |
| 1. Sarah Clem | 1. Curry Jones |
| 2. Mo Shafii | 2. Charlie Howell |
| 3. Tate Wentz | 3. Arlene Gaines |
| | |
| Conference Call Participants | |
| 1. Roger Miller | 1. Michael Bechdol |
| 2. Richard Healey | 2. Paul Kaspar |
| 3. Craig Oyeda | 3. Michael Tillman |
| 4. Jason Bolenbaugh | 4. Philip Crocker |
| 5. Mary Barnett | 5. Matt Hubner |
| 6. Selena Medrano | 6. Richard Wooster |
| | 7. Miranda Hodgkiss |
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